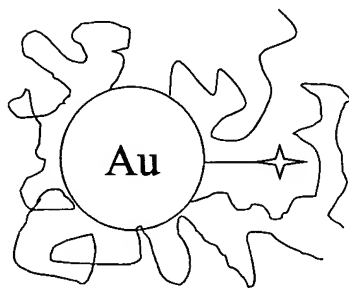


Short chain protected gold nanoparticle with one binding ligand



Long chain protected gold nanoparticle with one binding ligand

Figure 1

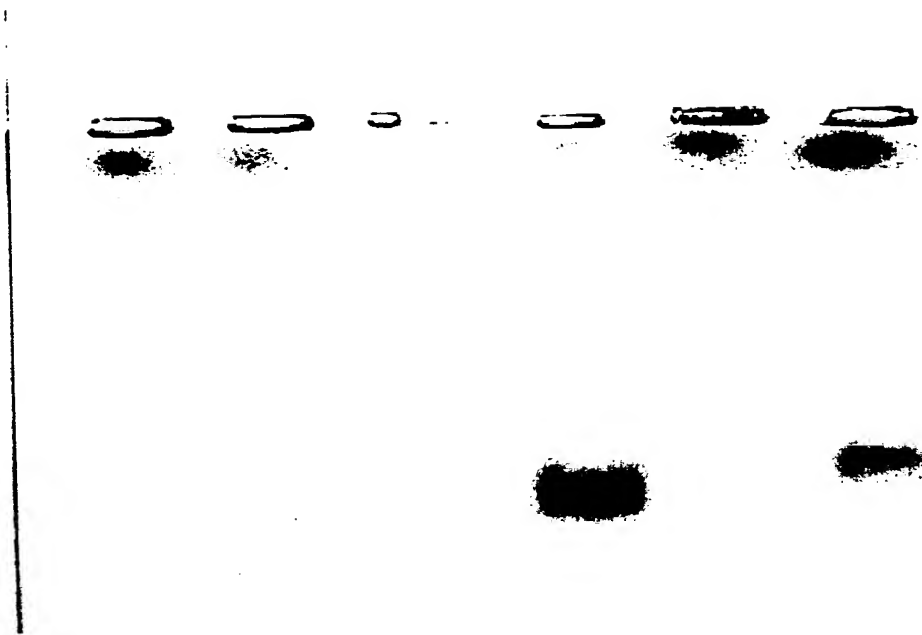


Figure 2  
Gel image of protein binding assay

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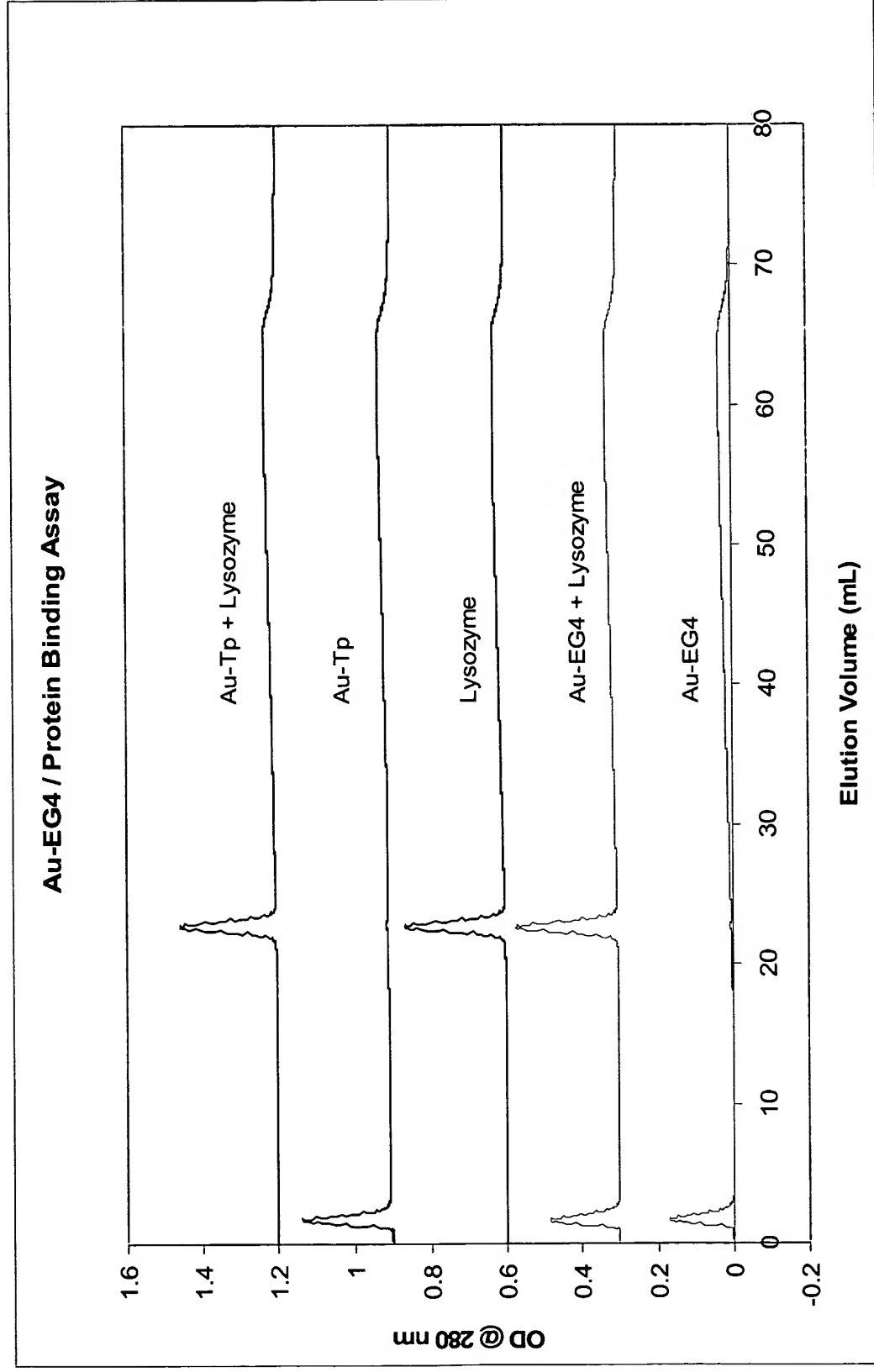


Figure 3

Chromatograph results of strong cation exchange chromatography for Au-Tp and Au-EG4 binding with lysozyme

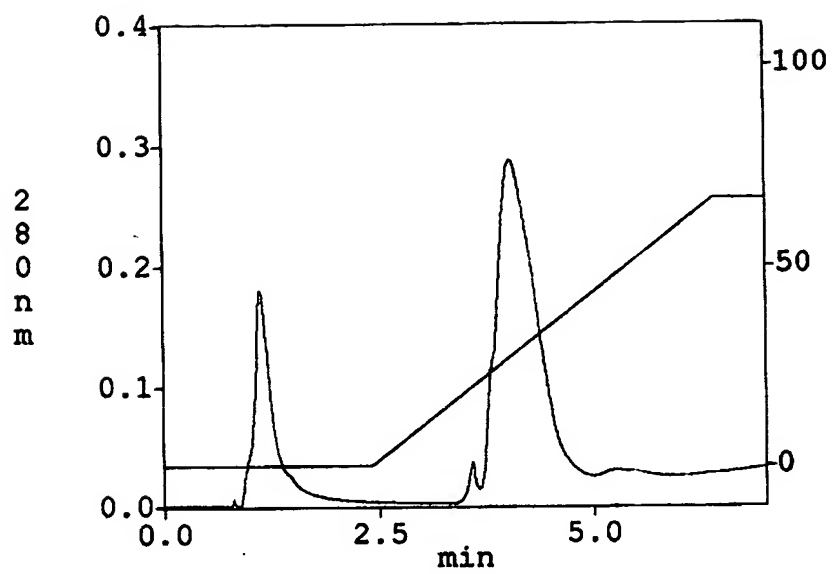


Figure 4  
Chromatograph of Au-EG4 and Au-Tp particles through a strong anion exchange column

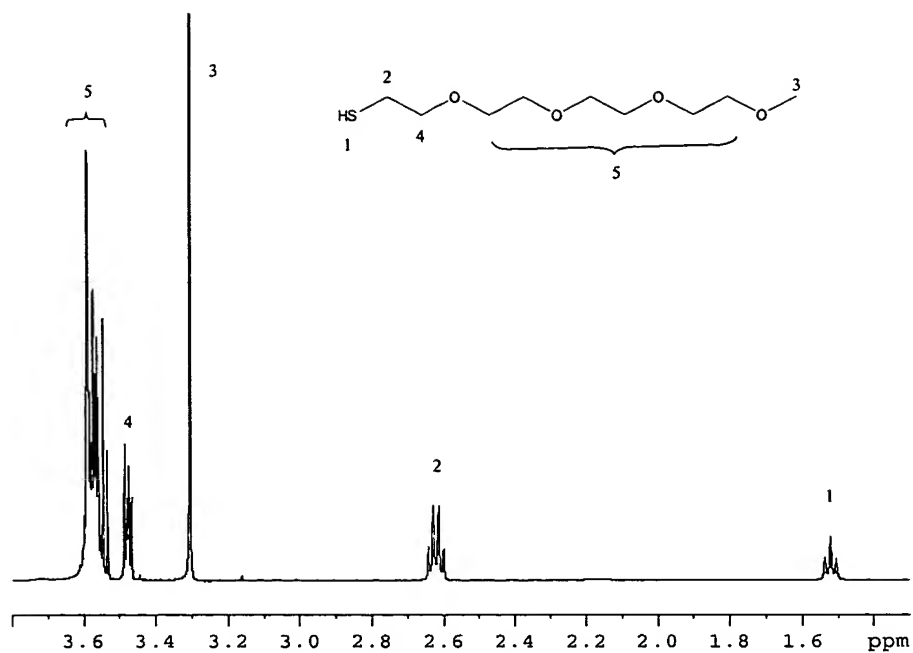


Figure 5a  
NMR spectra of the free EG4-SH molecule

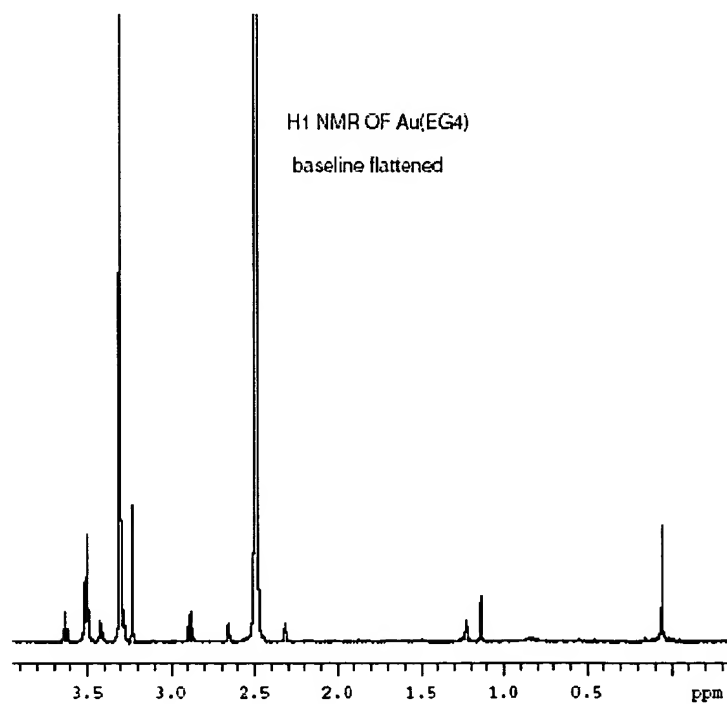
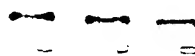


Figure 5b  
NMR spectra of Au-S-EG4 nanoparticle

Lane 1: 10  $\mu$ L of Au-EG<sub>4</sub> particles at  $\sim$  100  $\mu$ M, Lane 2 to 3, same amount of Au particles mixed with 5  $\mu$ g of total RNA and 1  $\mu$ g of chromosomal DNA, respectively

1      2      3



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Figure 6  
Gel electrophoresis image of a binding assay of Au-EG<sub>4</sub> particles with  
RNA and DNA